

CHAPTER 18

AESTHETIC AND VISUAL RESOURCES

This chapter evaluates potential changes in the visual elements at the Salton Sea that could be caused by implementation of the alternatives. The aesthetic/visual environment of the Salton Sea is influenced by a number of factors including visual elements, such as topography, vegetation, land use, human-made alterations, and lake elevation; and non-visual elements, such as odors and water quality. This chapter only describes the visual elements. Water quality and odor issues are discussed in Chapters 6 and 10, respectively.

STUDY AREA

The study area is defined as the geographical area where the majority of potential impacts are expected. The study area for aesthetic/visual resources includes lands within about 5 miles of the shoreline of the Salton Sea. Locales within the study area that have views of the Salton Sea are considered to be within the viewshed of the Salton Sea. Although the Salton Sea can be viewed from hills and mountains farther away, the majority of people view the Salton Sea from lands within the 5-mile study area boundary. The gently sloping lands on the northeastern and western sides of the Salton Sea provide generally unobstructed views and include most of the transportation routes, communities, and recreation facilities from which people can view the water.

REGULATORY REQUIREMENTS

No regulatory requirements pertain specifically to the aesthetic/visual environment of the Salton Sea. However, the State Scenic Highway Program and the Imperial and Riverside county general plans include provisions to regulate land use that could affect the visual environment, as described below.

State Scenic Highway Program

The purpose of the State Scenic Highway Program is to preserve and protect scenic State highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. State highways can either be officially designated as Scenic Highways or be determined to be eligible for designation. The status of a state scenic highway changes from eligible to officially designated when a local jurisdiction adopts a scenic corridor protection program and the California Department of Transportation (CalTrans) approves the designation as a Scenic Highway. Two segments of State highways near the Salton Sea have been classified as eligible routes by Caltrans: 1) State Highway 111 from Bombay Beach north to State Highway 195 near Mecca, and 2) the portion of State Highway 78 west of the intersection with State Highway 86. Imperial and Riverside counties have not applied for Scenic Highway designations for these road segments.

County of Imperial General Plan

The Conservation and Open Space element of the County of Imperial General Plan contains several provisions for visual resources along Scenic Highways (County of Imperial, 1997b). Appendix B of the Conservation and Open Space element, Standards for Scenic Highway Corridor Protection, acknowledges the value of scenic highways and provides for controls through land use regulations along designated highways. Imperial County has not applied for State Scenic Highway designation for that portion of State Highway 78 in Imperial County (Kevin, 2005).

County of Riverside General Plan

The Eastern Coachella Valley Plan of the County of Riverside General Plan contains a Scenic Highway element. The plan provides for protection of scenic highways through land use regulations of adjacent properties. The general plan identifies State Highway 111 as being eligible for Scenic Highway designation, however the county has not submitted the designation.

HISTORICAL PERSPECTIVE

Prior to the formation of the Salton Sea, the Salton Basin was a desert landscape. After the Salton Sea was formed, the landscape included a large lake in a desert environment. The surface water elevation of the Salton Sea has varied over the past 100 years, as described in Chapter 5 and Appendix H-2. Historic changes in water surface elevation are particularly evident at shoreline locations such as near the confluence of the Whitewater River, North Shore, Bombay Beach, the Red Hill area, and many locations along the western shoreline where buildings and other facilities have been inundated by rising waters.

DATA SOURCES

Data were obtained from multiple sources, including site visits; Web sites; and federal, State, and local planning documents. Specific citations are included in the text and listed at the end of this chapter.

DATA LIMITATIONS

Extrapolations of observed and reported data are the basis for future projections of visual conditions. These projections are based upon results of changes in water surface elevation and facilities located in the Sea Bed, as described in Chapters 3 and 5.

EXISTING CONDITIONS

The northwest-to-southeast-oriented Salton Sea is located in a basin between the Santa Rosa and Vallecito mountains to the west and the Orocopia and Chocolate mountains to the east (Elkanah, 1974). The northwest end of the Salton Sea abuts the Coachella Valley, and the southeast end abuts the Imperial Valley. The Salton Sea is a dominant visual feature within much of the basin. The water surface elevation of the Salton Sea has fluctuated over the past 100 years. In the 1980s, the water surface elevation rose and submerged trees, roads, utility poles, buildings, and other structures that were located along the previous shoreline. The features continue to be submerged and influence the visual environment in many parts of the Salton Sea.

Lands near the northwest and southeast shorelines of the Salton Sea are irrigated agriculture lands. The fields of row crops contrast in appearance (color and texture) with native low desert scrub vegetation and wetland vegetation along the shoreline.

Developed areas such as residential communities, small commercial areas, and recreation facilities are scattered along the edges of the Salton Sea including North Shore, Desert Shores, Salton City, Salton Sea Beach, and Bombay Beach. These communities have a residential/suburban visual character. Publicly owned lands that provide access to the Salton Sea include the Salton Sea State Recreation Area (located along 15 miles of the northeastern shoreline), Sonny Bono Salton Sea National Wildlife Refuge at the southern end, Imperial Wildlife Area Wister Unit, Red Hill Marina, and additional boat launches associated with nearby communities.

Due to the large numbers and variety, birds are an important aesthetic/visual element at the Salton Sea. Many of the birds congregate at or near the Sonny Bono Salton Sea National Wildlife Refuge and the Imperial Wildlife Area Wister Unit, as described in Chapter 8.

Visual Resources

The area around the Salton Sea was divided into four subareas, north, west, south, and east shores, as shown in Figure 18-1. The description of each subarea includes the location of the subarea, the visual elements, visual access to the Salton Sea, and the types of viewers who view the water. Elements that influence the visual environment include topographic features such as landforms; the Salton Sea itself; vegetation patterns; human-made alterations to the landscape such as roads, public works projects, agricultural land uses, and structures; and wildlife. Photographs were taken in each subarea to represent the visual environment of the subarea. These photographs are identified as photo points, and their locations are depicted in Figure 18-2.

North Shore Subarea

The north shore subarea includes the northwest shoreline and the southeast portion of the Coachella Valley, as shown in Figure 18-3. This subarea is on a level alluvial plain that gently rises towards the east to adjacent mountains. The Whitewater River flows into the Salton Sea in this subarea. The river has formed a large delta that is a significant visual element.

Extensive agricultural lands near the northwest shoreline include row crops, date palm groves, and vineyards. With the exception of North Shore, there are no residential communities in this subarea with views of the Salton Sea. The Whitewater River delta contains dikes and roadways with extensive areas of open water, wetland vegetation, and remnants of upland vegetation that has been submerged.

Public access to the Whitewater River delta is currently limited and there are no developed public recreational facilities. Parts of the delta have a natural character, although human-made objects, such as roads, buildings, utility poles, and docks (some of which are submerged or partially submerged), are evident, as shown in Figure 18-4.

Except near North Shore, views of the Salton Sea by the general public are restricted in this subarea. This is due to minimal public access and vegetation (agricultural and shoreline vegetation) that blocks views from adjacent uplands. Primary areas from which the public can view the Salton Sea in this subarea are from State Highways 86, 195, and 111. Limited views are provided from local roads that pass through the agricultural areas and connect with State Highway 86. The primary viewers of the Salton Sea in this subarea are travelers and residents of North Shore.

West Shore Subarea

The west shore subarea includes about 20 miles of shoreline along the western part of the Salton Sea from north of Desert Shores to south of Salton City. This subarea is on a gradually sloping alluvial fan that gently rises towards the west to the Santa Rosa Mountains and Anza-Borrego State Park.

Extensive undeveloped and relatively undisturbed lands contain low desert scrub vegetation. Several residential suburban and commercial developments are located between State Highway 86 and the Salton Sea shoreline, as shown in Figure 18-5. Smaller subdivisions are located west of State Highway 86. The largest residential areas are Desert Shores, Salton Sea Beach, and Salton City. Some of the communities have boat ramps, marinas, and other private recreational facilities that provide access to the Salton Sea, as shown in Figure 18-6.

Visual access to the Salton Sea is extensive in this area due to the open nature of the landscape, presence of State Highway 86, and proximity of communities to the shoreline, as shown in Figures 18-7 through 18-9.

South Shore Subarea

The south shore subarea includes the southwestern shoreline in the northern end of the Imperial Valley. The New and Alamo rivers flow into the Salton Sea in this subarea. These rivers form deltas that are significant visual elements.

Intensive irrigated row crops and wildlife management areas are the primary land uses in this subarea. The Sonny Bono Salton Sea National Wildlife Refuge contains areas of salt marsh, open water, pasture, and freshwater marsh and is a sanctuary for waterfowl and other birds. Public access to the shoreline is provided at observation towers, viewing blinds, observation trails, and an interpretive center. The view from the observation tower is shown in Figure 18-10. Red Island, Mullett Island, and Obsidian Butte extend about 100 feet above the ground surface in this area.

Geothermal plants can be viewed in the southern parts of the subarea. The height and bulk of the plants make them dominant industrial visual features. Steam plumes from the plants have varying degrees of visibility depending on atmospheric conditions, especially during cooler weather.

Visual access to the Salton Sea in most of this subarea is limited due to distance from State Highways 86 and 111, as shown in Figure 18-11. Visual access is provided near Red Hill Marina County Park, as shown in Figure 18-12. This park is located near the confluence with the Alamo River and includes Red Island (a topographic feature that provides excellent views of the Salton Sea), a campground, a picnic area, and a boat ramp, as shown in Figure 18-13. The primary viewers of the Salton Sea in this part of the south shore subarea are recreationists and, to a lesser extent, travelers.

East Shore Subarea

The east shore subarea includes about 20 miles of shoreline from south of Bombay Beach to north of Desert Beach. State Highway 111 parallels the shoreline in this subarea. The relatively level terrain in the subarea is part of the lower alluvial plains of the Mecca Hills and the Orocopia and Chocolate mountains.

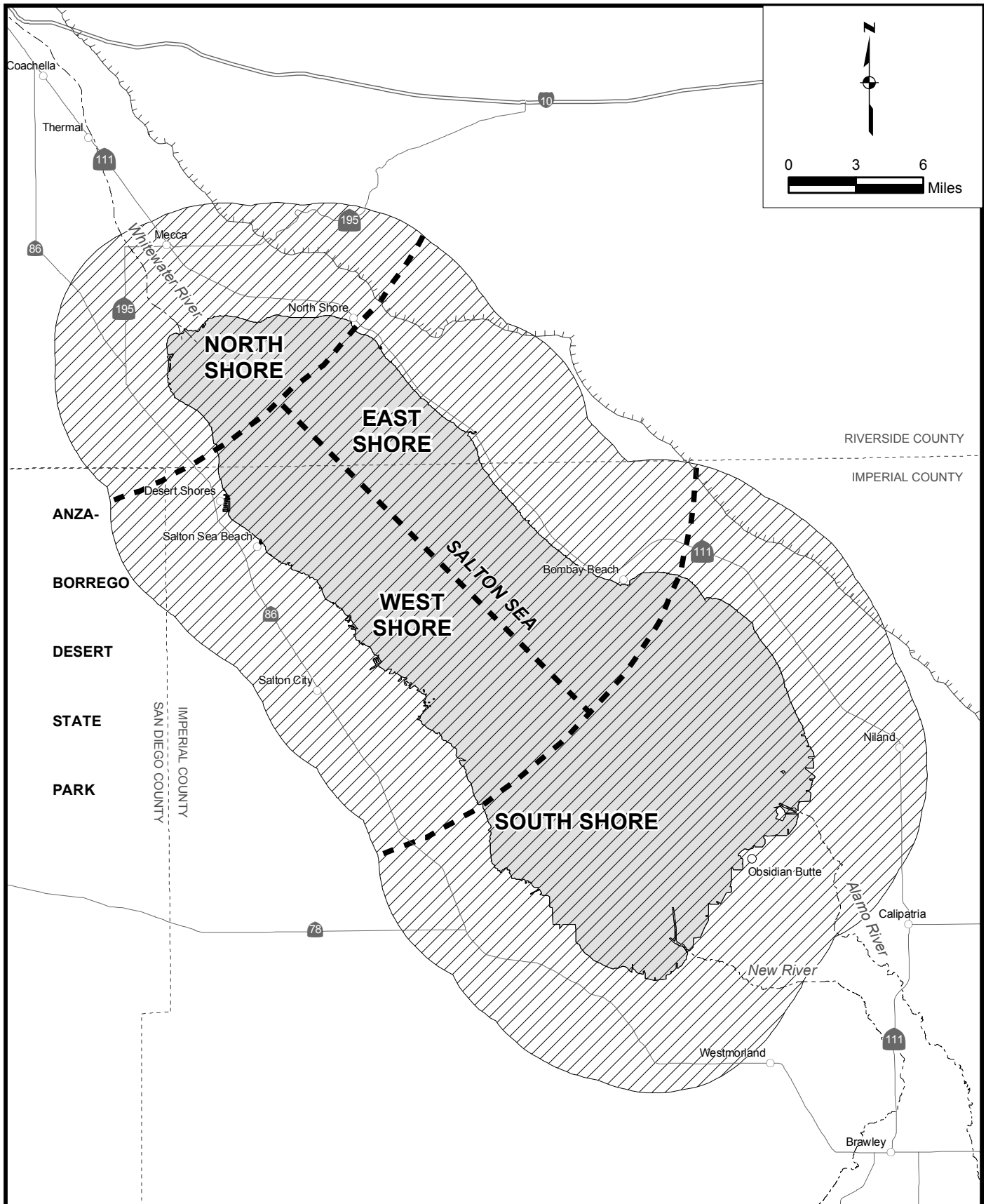
This subarea includes Bombay Beach, Desert Beach, and the Salton Sea State Recreation Area. The Salton Sea State Recreation Area, includes five developed campgrounds, headquarters area, and extensive undeveloped lands with low desert scrub vegetation. Low desert scrub vegetation extends between the residential developed areas. Vegetation of landscaped areas at the Salton Sea Recreation Area and at the Bombay and Desert Beach communities contrasts in appearance (color and texture) with the low desert scrub vegetation. The Salton Sea State Recreation Area has a recreation/park character, while the two communities have a residential/suburban character. The public has numerous places to view the shoreline in this subarea, as shown in Figures 18-14 through 18-16. Viewers of the Salton Sea within this subarea include travelers on SR-111, residents of Bombay Beach and Desert Beach, and users of the Salton Sea Recreation Area.

ENVIRONMENTAL IMPACTS

Analysis Methodology

To establish the degree of impact on visual resources, the following factors influence visual quality with respect to the alternatives:

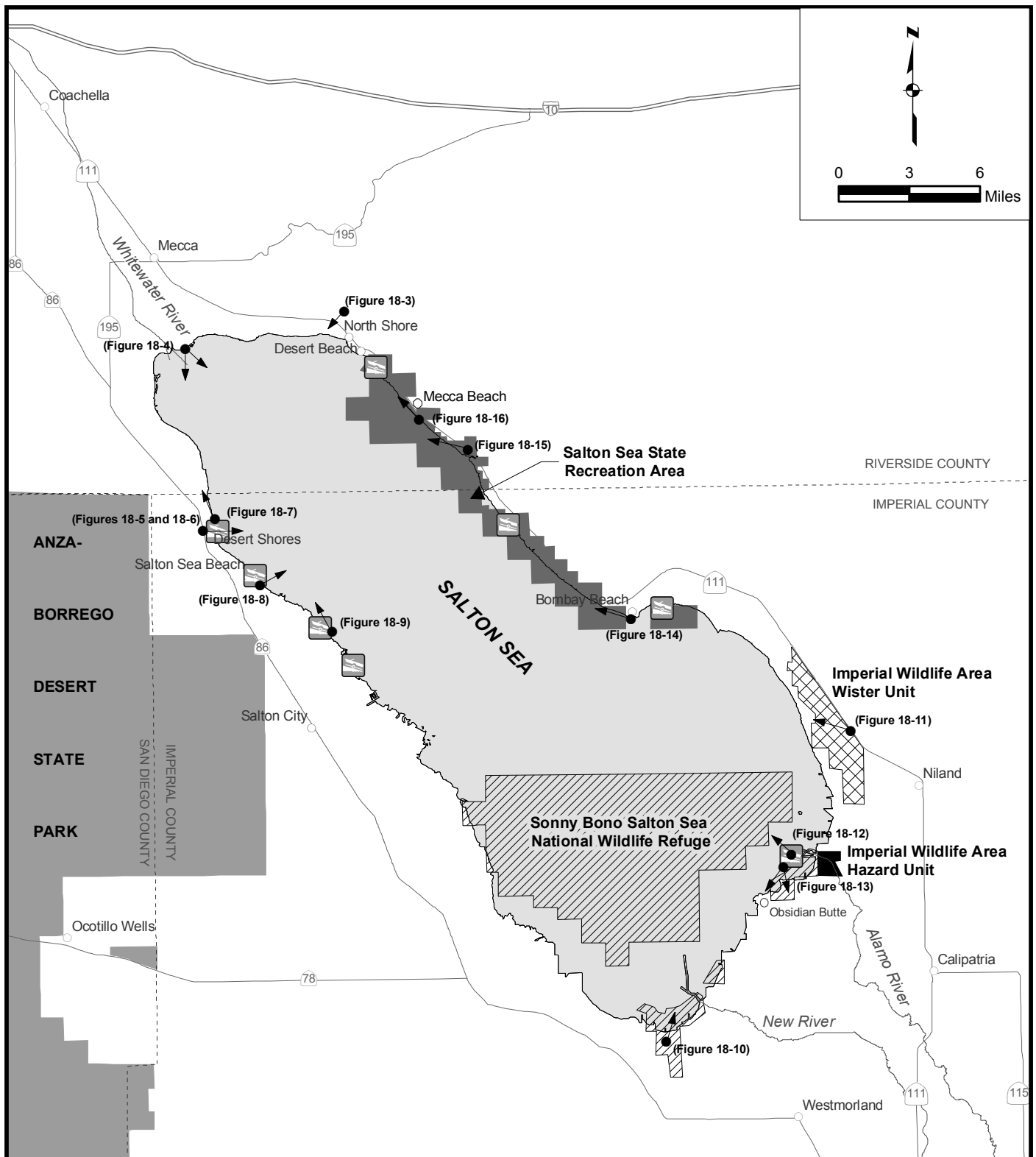
- The proximity of open water and Exposed Playa near the shoreline;
- The width of open water as viewed from shoreline locations; and
- Facilities that are visible from the existing shoreline and are located within 0.5 miles from the viewer.



LEGEND

- | | |
|---|--------------------|
| Generalized Study Area for Visual Resources | Coachella Canal |
| Visual Sub Areas | Interstate Highway |
| Salton Sea | Regional Highway |
| Towns and Communities | County Boundary |

FIGURE 18-1
AESTHETIC / VISUAL RESOURCE
STUDY AREA AND SUB AREAS



LEGEND

- Photo Point Location (Figure Number)
- ➔ General Direction of Photograph
- Salton Sea State Recreation Area
- ▨ Salton Sea National Wildlife Refuge
- ☁ Salton Sea
- ▤ Imperial Wildlife Area
- ▧ Imperial Wildlife Area Wister Unit
- Imperial Wildlife Area Hazard Unit
- ⚓ Boat Launch
- ⛺ Campground
- Towns and Communities
- Interstate Highway
- Regional Highway
- - - County Boundary

FIGURE 18-2
SALTON SEA EXISTING CONDITIONS
PHOTO POINT LOCATIONS



**FIGURE 18-3
VIEW TO THE SOUTHWEST FROM
THE COMMUNITY OF NORTH SHORE**



**FIGURE 18-4
VIEW TO THE SOUTHEAST FROM
THE END OF JOHNSON ROAD NEAR
WHITEWATER RIVER**



**FIGURE 18-5
VIEW TO THE EAST NEAR
COMMUNITY OF DESERT SHORES
FROM STATE HIGHWAY 86**



**FIGURE 18-6
VIEW TO THE EAST AT BOAT RAMP
FROM RANCHO MARINA IN DESERT
SHORES**



**FIGURE 18-7
VIEW TO THE NORTH OF LEVEE FROM
CAPRI LANE IN DESERT SHORES**



**FIGURE 18-8
VIEW TO THE NORTHEAST FROM
SALTON SEA BEACH**



**FIGURE 18-9
VIEW TO THE NORTH FROM THE
LAUNCHING FACILITY NEAR
SALTON CITY**



**FIGURE 18-10
VIEW TO THE NORTH FROM OBSERVATION
TOWER AT SONNY BONO SALTON SEA
NATIONAL WILDLIFE REFUGE**



**FIGURE 18-11
VIEW TO THE NORTHWEST FROM
STATE HIGHWAY 111 NEAR IMPERIAL
WILDLIFE AREA – WISTER UNIT**



**FIGURE 18-12
VIEW TO THE NORTHWEST OF
SALTON SEA FROM RED HILL
MARINA COUNTY PARK**



**FIGURE 18-13
VIEW TO THE SOUTH FROM RED HILL
COUNTY PARK WITH GEOTHERMAL
FACILITIES IN BACKGROUND**



**FIGURE 18-14
VIEW TO THE NORTHWEST FROM
BOMBAY BEACH AT SALTON SEA
STATE RECREATION AREA**



**FIGURE 18-15
VIEW TO NORTHWEST NEAR SALTON
SEA STATE RECREATION AREA
HEADQUARTERS**



**FIGURE 18-16
VIEW TO THE NORTHWEST FROM
MECCA BEACH AT SALTON SEA
STATE RECREATION AREA**

Open Water

Bodies of water in arid environments are often considered valuable visual resources. As such, the Salton Sea is a major visual resource that influences the visual character of lands and provides many scenic vistas from the shoreline and surrounding areas. For the purposes of the Draft Programmatic Environmental Impact Report (PEIR), the open water would include the Marine Sea (including the Marine Sea Mixing Zone), Saline Habitat Complex (including the Shoreline Waterway), Concentric Rings and Lakes, Recreational Saltwater and Recreational Estuary lakes, and Brine Sink. It is assumed that most viewers would find open water more attractive than Exposed Playa in the Sea Bed. Therefore, the analysis compares the distances to open water and the width of open water as viewed from the shoreline.

Visible Structures

For this analysis, structures located within 0.5 miles of the shoreline would change the visual character and scenic vistas of the public that access the Sea. The types of facilities that would be located within 0.5 miles of the shoreline are Air Quality Management Canals, Pupfish Channels, Saltwater Conveyance, Barriers, Perimeter Dikes, and Berms. These facilities would be broad horizontal visual elements that would often be located down gradient of the shoreline where viewers would be located.

Related Aspects of Visual Character

Due to the extensive avian resources at the Salton Sea, bird-viewing opportunities are considered to be another aspect of visual character. Changes in bird habitat in each alternative would change visual characterizations and possibly could affect the types of birds that would use the habitat, as described for different habitat types in Appendix H-1.

The presence of recreational facilities also would affect visual characterization in two ways. First, the facilities would provide opportunities for viewing the Sea. Second, the recreational facilities could affect the visual experience of the viewer. However, the alternatives do not include specific recreational facilities. Project-level analyses could evaluate specific recreational facilities and related changes to visual characteristics.

Significance Criteria

The following significance criteria were based on CEQA and air quality regulatory agency guidance and used to determine if changes as compared to Existing Conditions and the No Action Alternative would:

- Substantially degrade the existing visual character or quality of the site and its surroundings;
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area;
- Substantially damage scenic resources, including but not limited to trees; rock outcroppings, and historic buildings within a State scenic highway; and
- Have a substantial adverse impact on a scenic vista.

Application of Significance Criteria

Significance criteria have been applied to the alternatives considered in the PEIR. The following list summarizes the overall methodology in the application of the criteria to the alternatives:

- **Substantially Degrade Visual Character, Quality, or Scenic Vistas** – The analysis methodology, described above, is based upon changes in the extent of open water, distances to

open water, and presence of new structures within 0.5 miles of the shoreline as a measure of degradation in visual resources.

- **Create a New Source of Light or Glare** – The details of the alternatives have not been defined specifically in the PEIR. Therefore, it is not possible to determine if there would be sources of light and glare. However, new sources of light and glare could occur at structures within 0.5 miles of the shoreline.
- **Substantially Damage Scenic Resources within a State Scenic Highway Visual Area** – There are no designated State Scenic Highways in the study area. Therefore, this criterion is not used in the impact assessment.

Summary of Assumptions

The assumptions related to the descriptions of the alternatives are described in Chapter 3. The specific assumptions related to the analysis of visual resources are summarized in Table 18-1.

Table 18-1
Summary of Assumptions for Visual Resources

Assumptions Common to All Alternatives	
1. Viewers would find views of water features more attractive than views of exposed land or canals	
Assumptions Specific to the Alternatives	
No Action Alternative and Alternatives 1, 2, 3, 4, 5, 6, 7, and 8	No additional assumptions were made.

Summary of Impact Assessment

The impacts shown in Table 18-2 assume implementation of the Next Steps to reduce the adverse impacts.

No Action Alternative

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Pupfish Channels, and Salton Sea. The construction activities would be identical under the No Action Alternative-CEQA Conditions and the No Action Alternative-Variability Conditions. Therefore, impacts related to disturbance would be the same for both conditions.

Under the No Action Alternative, views would be affected by the Sedimentation/Distribution Basins near the confluences of New, Alamo, and Whitewater rivers; the Air Quality Management Canal that would be constructed along most of the shoreline; Air Quality Management facilities that would be constructed on the Exposed Playa; Pupfish Channels; and the Salton Sea. Any change in visual character from Existing Conditions or No Action Alternative was considered to be significant.

Each Sedimentation/Distribution Basin would appear as 200-acre open water areas that would extend less than 1 mile along the shoreline. However, the basins would appear as managed areas with vegetation removed from the earthen Berms that would form the Basins to reduce loss of water to evapotranspiration. Surface water elevation could change frequently. These facilities would be constructed in Phase I.

Table 18-2
Summary of Benefit and Impact Assessments to Visual Resources

Alternative	Basis of Comparison	Changes by Phase				Comments	Next Steps
		I	II	III	IV		
Criterion: Substantially degrade visual character, quality, or scenic vistas.							
No Action Alternative	Existing Conditions	S	S	S	S	Sedimentation/Distribution Basins would be visible from the northern and southern shorelines, Pupfish Channels would be visible from southern shoreline, Air Quality Management Canals would be visible along the shoreline, and the Salton Sea would be located up to 3.8 miles from the shoreline.	Several locations would be evaluated in project-level analyses for all facilities. Methods to camouflage large facilities could be considered.
	No Action Alternative	NA	NA	NA	NA		
Alternatives 1 and 2	Existing Conditions	S	S	S	S	Changes in visual resources same as No Action Alternative for Sedimentation/Distribution Basins and Air Quality Management. Pupfish Channels would be visible from the shoreline. Saline Habitat Complex would be visible from the southern and southeastern shorelines, and the Brine Sink would be located up to 4.7 miles from the shoreline.	Same as No Action Alternative.
	No Action Alternative	S	S	S	S		
Alternative 3	Existing Conditions	S	S	S	S	Sedimentation/Distribution Basins would be visible from the southern shoreline and the First Ring would be visible along the shoreline. The Brine Sink would be located up to 7.7 miles from the shoreline.	Same as No Action Alternative.
	No Action Alternative	S	S	S	S		
Alternative 4	Existing Conditions	S	S	S	S	Sedimentation/Distribution Basins would be visible from the southern shoreline. First and Second lakes would be visible along the southern and northern shoreline, respectively. Third and Fourth lakes would be visible from all shorelines. The Brine Sink would be located up to 10.2 miles from the shoreline. This alternative would not include Air Quality Management measures.	Same as No Action Alternative.
	No Action Alternative	S	S	S	S		
Alternative 5	Existing Conditions	S	S	S	S	Sedimentation/Distribution Basins would be visible from the southern shorelines, Air Quality Management Canals would be visible along the shoreline, Saline Habitat Complex would be visible from the southern and southeastern shorelines, Marine Sea would be visible from the northern shorelines, and the Brine Sink would not be visible from all shorelines.	Same as No Action Alternative.
	No Action Alternative	S	S	S	S		

Table 18-2
Summary of Benefit and Impact Assessments to Visual Resources

Alternative	Basis of Comparison	Changes by Phase				Comments	Next Steps
		I	II	III	IV		
Alternatives 6 and 7	Existing Conditions	S	S	S	S	Sedimentation/Distribution Basin and pumping plant would be visible from the southern shoreline near Alamo River, Pupfish Channels would be visible from southern shoreline, Air Quality Management Canals would be visible along the shoreline, Saline Habitat Complex would be visible from the southern and southeastern shorelines, Marine Sea (Recreational Saltwater and Estuary Lakes for Alternative 7) would be visible from all shorelines except along the eastern shoreline, and the Brine Sink would not be visible from all shorelines.	Same as No Action Alternative.
	No Action Alternative	S	S	S	S		
Alternative 8	Existing Conditions	S	S	S	S	Sedimentation/Distribution Basins would be visible from the southern shorelines, Air Quality Management Canals would be visible along the shoreline, Saline Habitat Complex would be visible from the western and southeastern shorelines, Marine Sea would be visible from the northern and southern shorelines, and the Brine Sink would not be visible from all shorelines.	Same as No Action Alternative.
	No Action Alternative	S	S	S	S		
Criterion: Create a new source of light or glare.							
No Action Alternative	Existing Conditions	L	L	L	L	Security lighting at the facilities could cause light and glare.	Use non-glare lighting with on-demand switching.
	No Action Alternative	NA	NA	NA	NA		
Alternatives 1 - 8	Existing Conditions	L	L	L	L	Similar to No Action Alternative.	Same as No Action Alternative.
	No Action Alternative	L	L	L	L		

Legend for Types of Benefits or Impacts in Each Phase:

S = Significant Impact
O = No Impact
L = Less Than Significant
B = Beneficial Impact
NA = Not Analyzed

Air Quality Management Canals would appear as long, linear, low-profile visual elements along most of the shoreline, as shown in the visual simulation in Figure 18-17. The canals would be formed with low berms on either side of the canal excavated from the Sea Bed and would be similar in color to the Exposed Playa. These facilities would be constructed in Phase I.

Air Quality Management measures would be constructed on portions of the Exposed Playa using water efficient vegetation. The vegetation would be about 3 feet in height and diameter, as shown in the visual simulation in Figure 18-18. The plants would be planted in rows about 5 to 10 feet apart to reduce dust emissions. However, as viewed from shoreline, the vegetated areas would blend together and look like stands of vegetation. Pumping plants and filtrations stations would be seen among the vegetated areas.

Pupfish Channels would be unlined excavated channels along the southern shoreline and have the general appearance of a drainage canal. The Pupfish Channels would be constructed in Phase I.

The Salton Sea would continue to appear as a large body of water. However, the Salton Sea would not be located adjacent to the shoreline. This high salinity water body probably would be reddish brown to dark brown based on water quality and weather conditions. Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions: Salton City near the launch (a location near a community along the West Shore Subarea), Whitewater River confluence near Johnson Road (near the midpoint of the North Shore Subarea), Bombay Beach area (a location near a community along the East Shore Subarea), and near Obsidian Butte (near midpoint of South Shore Subarea).

Alternative 1 – Saline Habitat Complex I

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Pupfish Channels, Saline Habitat Complex, and Brine Sink.

By the end of Phase I, Sedimentation/Distribution Basins, Pupfish Channel, portions of the Air Quality Management Canals along the shorelines, and initial Saline Habitat Complex cells would be constructed. The visual characteristics of Sedimentation/Distribution Basins, Pupfish Channel, and Air Quality Management Canals would be as described under the No Action Alternative.

The Saline Habitat Complex would be low-lying in the landscape and would include terraces along contours of the Sea Bed, as shown in the visual simulation in Figure 18-19. Because of the salinity in the Saline Habitat Complex cells, there would be no substantial vegetation in this area. The primary vertical elements would be snags used for perching by birds. Irregular Berms, islands, and peninsulas would appear as earthen “dividers” between and in the cells.

At the end of Phase I, the extent of the Brine Sink and Exposed Playa would be similar to conditions described for No Action-Alternative.

The Brine Sink would continue to appear as a large body of water. However, the Brine Sink would not be located adjacent to the shoreline. This high salinity water body probably would be reddish brown to dark brown based on water quality and weather conditions.

Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions. The distances and extent of open water differs along the shoreline due to the changes in bathymetry.

Glare could occur due to security lighting at Sedimentation/Distribution Facilities, Air Quality Management, and other facilities. It would be possible to use on-demand lighting to reduce impacts to the environment and to wildlife in the vicinity of the Sea.

Alternative 2 – Saline Habitat Complex II

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Saline Habitat Complex, Shoreline Waterway, Saltwater Conveyance, and Brine Sink.

By the end of Phase I, Sedimentation/Distribution Basins, Air Quality Management Canals along the shorelines, and the Shoreline Waterway of the Saline Habitat Complex would be constructed. The Shoreline Waterway would be similar to Saline Habitat Complex cells, but would not include islands and snags or dividing Berms. The visual characteristics of Sedimentation/Distribution Basins and Air Quality Management Canals would be as described under the No Action Alternative. Saline Habitat Complex cells and Air Quality Management would be constructed in Phases I through IV. The Saline Habitat Complex cells and Brine Sink would be as described under Alternative 1.

Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions.

Light and glare impacts would be similar to those described for the No Action Alternative.

Alternative 3 – Concentric Rings

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, First and Second rings, and Brine Sink.

By the end of Phase I, Sedimentation/Distribution Basins and the First Ring would be constructed. Sedimentation/Distribution Basins would have visual characteristics as described above. Water in the First Ring would extend from the shoreline to a Perimeter Dike located along contours in the Sea Bed and appear as a linear water body. The Second Ring and Air Quality Management would be constructed in Phases II through IV.

Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions. A pumping plant would be visible from a portion of the eastern shoreline.

Light and glare impacts would be similar to those described for the No Action Alternative.

Alternative 4 – Concentric Lakes

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins; First, Second, Third, and Fourth lakes; and Brine Sink.

By the end of Phase I, Sedimentation/Distribution Basins and the First and Second Lakes would be constructed. Sedimentation/Distribution Basins would have visual characteristics as described above. The lakes would appear as linear water bodies with islands and snags. Water in the First and Second lakes would extend from the shoreline to a berm located along contours in the Sea Bed. The Third and Fourth lakes and Air Quality Management would be constructed in Phases II through IV.

Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions.

Light and glare impacts would be similar to those described for the No Action Alternative.



**FIGURE 18-17
SIMULATION OF AIR QUALITY
MANAGEMENT CANAL**



**FIGURE 18-18
SIMULATION OF AIR QUALITY MANAGEMENT
CANAL AND EXPOSED PLAYA WITH BRINE SINK
IN THE BACKGROUND**

Table 18-3
Distance to and Extent of Open Water from Shoreline

Alternative	Distance to Open Water		Extent of Open Water	
	2020	2078	2020	2078
Salton City				
No Action Alternative - CEQA Conditions	0.2 miles to Salton Sea	0.7 miles to Salton Sea	9.2 miles across Salton Sea	8.5 miles across Salton Sea
No Action Alternative - Variability Conditions	0.3 miles to Salton Sea	1.2 miles to Salton Sea	9.0 miles across Salton Sea	7.6 miles across Salton Sea
Alternative 1	0.3 miles to Brine Sink	1.3 miles to Brine Sink	8.9 miles across Brine Sink	7.2 miles across Brine Sink
Alternative 2	0.3 miles to Brine Sink	1.6 miles to Brine Sink	8.9 miles across Brine Sink	5.2 miles across Brine Sink
Alternative 3 (Second Ring adjacent to First Ring)	0.1 miles to First Ring 0.6 miles to Brine Sink	0.1 miles to First Ring 2.1 miles to Brine Sink	0.3 miles across First Ring 8.8 miles across Brine Sink	0.6 miles across First and Second Rings 4.9 miles across Brine Sink
Alternative 4 (Lakes separated by Exposed Playa)	0.3 miles to Brine Sink	0.4 miles to Second Lake 0.9 miles to Third Lake 1.3 miles to Fourth Lake 3.2 miles to Brine Sink	9.0 miles across Brine Sink	0.2 miles across Second Lake 0.1 miles across Third Lake 0.3 miles across Fourth Lake 2.6 miles across Brine Sink
Alternative 5	0.3 miles to Brine Sink	3.2 miles to Brine Sink Barrier would be visible to north	9.0 miles across Brine Sink	2.6 miles across Brine Sink
Alternative 6	0.3 miles to Brine Sink	0.1 miles to Marine Sea 3.2 miles to Brine Sink	9.0 miles across Brine Sink	0.3 miles across Marine Sea Mixing Zone 2.6 miles across Brine Sink
Alternative 7	0.3 miles to Brine Sink	0.2 miles to Recreational Saltwater Lake Brine Sink will not be visible	9.0 miles across Brine Sink	9.5 miles across Recreational Saltwater Lake
Alternative 8	0.3 miles to Brine Sink	0.1 miles to Marine Sea Mixing Zone 2.3 miles to Saline Habitat Complex to south - but would not be visible due to shoreline 4.5 miles to Brine Sink	9.0 miles across Brine Sink	0.3 miles across Marine Sea 1.0 miles across Brine Sink
Whitewater River Delta				
No Action Alternative - CEQA Conditions	1.3 miles to Salton Sea	2.3 miles to Salton Sea	32.7 miles across Salton Sea	29.8 miles across Salton Sea
No Action Alternative - Variability Conditions	1.5 miles to Salton Sea	3.8 miles to Salton Sea	31.7 miles across Salton Sea	26.2 miles across Salton Sea
Alternative 1	1.6 miles to Brine Sink	4.7 miles to Brine Sink	31.6 miles across Brine Sink	25.7 miles across Brine Sink

Table 18-3
Distance to and Extent of Open Water from Shoreline

Alternative	Distance to Open Water		Extent of Open Water	
	2020	2078	2020	2078
Alternative 2	1.6 miles to Brine Sink	0.3 miles to Saline Habitat Complex 6.9 miles to Brine Sink	31.6 miles across Brine Sink	2.6 miles across Saline Habitat Complex 21.9 miles across Brine Sink
Alternative 3 (Second Ring adjacent to First Ring)	0.3 miles to First Ring 1.9 miles to Brine Sink	0.3 miles to First Ring 7.7 miles to Brine Sink	1.3 miles across First Ring 31.4 miles across Brine Sink	2.2 miles across First and Second Rings 19.9 miles across Brine Sink
Alternative 4 (Lakes separated by Exposed Playa)	1.5 miles to Brine Sink	1.5 miles to Second Lake 3.0 miles to Third Lake 4.9 miles to Fourth Lake 10.2 miles to Brine Sink	31.7 miles across Brine Sink	0.4 miles across Second Lake 0.9 miles across Third Lake 1.4 miles across Fourth Lake 5.7 miles across Brine Sink
Alternative 5	1.5 miles to Brine Sink	0.3 miles to North Sea Brine Sink would not be visible past barrier	31.7 miles across Brine Sink	13 miles across North Sea to Barrier
Alternative 6	1.5 miles to Brine Sink	0.3 miles to North Sea Brine Sink will not be visible past barrier	31.7 miles across Brine Sink	10.0 miles across North Sea to Barrier
Alternative 7	1.5 miles to Brine Sink	1.2 miles to Recreational Saltwater Lake - including Saline Habitat Complex Brine Sink will not be visible past barrier	31.7 miles across Brine Sink	17 miles across Recreational Saltwater Lake including Saline Habitat Complex
Alternative 8	1.5 miles to Brine Sink	0.3 miles to Marine Sea 11.0 miles to Brine Sink	31.7 miles across Brine Sink	1.3 miles across Marine Sea 3.2 miles across Brine Sink
Bombay Beach				
No Action Alternative - CEQA Conditions	0.3 miles to Salton Sea	0.6 miles to Salton Sea	12.8 miles across Salton Sea	11.6 miles across Salton Sea
No Action Alternative - Variability Conditions	0.4 miles to Salton Sea	1.0 mile to Salton Sea	12.3 miles across Salton Sea	10.5 miles across Salton Sea
Alternative 1	0.4 miles to Brine Sink	1.3 miles to Brine Sink 7.6 miles to Saline Habitat Complex	12.2 miles across Brine Sink	9.5 miles across Brine Sink Saline Habitat Complex may not be clearly visible
Alternative 2	0.4 miles to Brine Sink	2.8 miles to Brine Sink 0.3 miles to Saline Habitat Complex to south	12.2 miles across Brine Sink	6.3 miles across Brine Sink 10 miles across Saline Habitat Complex to south

Table 18-3
Distance to and Extent of Open Water from Shoreline

Alternative	Distance to Open Water		Extent of Open Water	
	2020	2078	2020	2078
Alternative 3 (Second Ring adjacent to First Ring)	0.1 miles to First Ring 0.5 miles to Brine Sink	0.1 miles to First Ring 3.6 miles to Brine Sink	0.4 miles across First Ring 12.1 miles across Brine Sink	0.6 miles across First and Second Rings 4.9 miles across Brine Sink
Alternative 4 (Lakes separated by Exposed Playa)	0.1 miles to First Lake 0.4 miles to Brine Sink	0.1 miles to First Lake 0.4 miles to Second Lake 0.8 miles to Third Lake 1.4 miles to Fourth Lake 5.3 miles to Brine Sink	0.2 miles across First Lake 12.3 miles across Brine Sink	0.2 miles across First Lake 0.1 miles across Second Lake 0.2 miles across Third Lake 0.3 miles across Fourth Lake 1.1 miles across Brine Sink
Alternative 5	0.4 miles to Brine Sink	5.3 miles to Brine Sink 0.3 miles to Saline Habitat Complex to south	12.3 miles across Brine Sink	1.3 miles across Brine Sink 10 miles across Saline Habitat Complex to south
Alternative 6	0.4 miles to Brine Sink	5.3 miles to Brine Sink 0.3 miles to Saline Habitat Complex to south	12.3 miles across Brine Sink	1.3 miles across Brine Sink 10 miles across Saline Habitat Complex to south
Alternative 7	0.4 miles to Brine Sink	3.6 miles to Brine Sink 0.3 miles to Saline Habitat Complex to south	12.3 miles across Brine Sink	4.9 miles across Brine Sink 10 miles across Saline Habitat Complex to south
Alternative 8	0.4 miles to Brine Sink	0.3 miles to Marine Sea 0.6 miles to Saline Habitat Complex to south Barrier would be visible 11.3 miles to northern Brine Sink	12.3 miles across Brine Sink	0.5 miles across Marine Sea 4.7 miles across Marine Sea and Saline Habitat Complex to south 4.0 miles across northern Brine Sink
Obsidian Butte (relatively the center of the South Shore Subarea)				
No Action Alternative - CEQA Conditions	0.04 miles to Salton Sea	1.4 miles to Salton Sea	33.6 miles across Salton Sea	29.8 miles across Salton Sea
No Action Alternative - Variability Conditions	0.2 miles to Salton Sea	3.5 miles to Salton Sea	33.2 miles across Salton Sea	26.2 miles across Salton Sea
Alternative 1	0.02 miles to Saline Habitat Complex 0.3 miles to Brine Sink	0.02 miles to Saline Habitat Complex 4.1 miles to Brine Sink	0.2 miles across Saline Habitat Complex 33.0 miles across Brine Sink	2.7 miles across Saline Habitat Complex 25.7 miles across Brine Sink

Table 18-3
Distance to and Extent of Open Water from Shoreline

Alternative	Distance to Open Water		Extent of Open Water	
	2020	2078	2020	2078
Alternative 2	0.02 miles to Saline Habitat Complex 0.3 miles to Brine Sink	0.02 miles to Saline Habitat Complex 5.5 miles to Brine Sink	0.2 miles across Saline Habitat Complex 33.0 miles across Brine Sink	2.7 miles across Saline Habitat Complex 21.9 miles across Brine Sink
Alternative 3	0.02 miles to First Ring 0.8 miles to Brine Sink	0.02 miles to First Ring 6.9 miles to Brine Sink	0.1 miles across First Ring 32.4 miles across Brine Sink	1.8 miles across First and Second Rings 19.9 miles across Brine Sink
Alternative 4	0.02 miles to First Lake 0.2 miles to Brine Sink	0.02 miles to First Lake 0.2 miles to Second Lake 2.5 miles to Third Lake 4.2 miles to Fourth Lake 8.5 miles to Brine Sink	0.2 miles across First Lake 33.2 miles across Brine Sink	0.2 miles across First Lake 0.8 miles across Second Lake 0.9 miles across Third Lake 1.2 miles across Fourth Lake 1.7 miles across Brine Sink
Alternative 5	0.02 miles to Saline Habitat Complex 0.2 miles to Brine Sink	0.02 miles to Saline Habitat Complex 8.5 miles to Brine Sink	0.2 miles across Saline Habitat Complex 33.2 miles across Brine Sink	2.7 miles across Saline Habitat Complex 1.7 miles across Brine Sink
Alternative 6	0.2 miles to Brine Sink	0.02 miles to Marine Sea Mixing Zone 1.8 miles to Saline Habitat Complex 8.5 miles to Brine Sink	33.2 miles across Brine Sink	1.7 miles across Marine Sea Mixing Zone 1.3 miles across Saline Habitat Complex 1.7 miles across Brine Sink
Alternative 7	0.2 miles to Brine Sink	0.02 miles to Recreational Estuary Lake 1.7 miles to Imperial Irrigation District Reservoir 6.9 miles to Brine Sink	33.2 miles across Brine Sink	1.7 miles across Recreational Estuary Lake 2.7 miles across Imperial Irrigation District Reservoir 6.5 miles across Brine Sink
Alternative 8	0.2 miles to Brine Sink	0.02 miles to Marine Sea Brine Sink would not be visible	33.2 miles across Brine Sink	6.0 miles across Marine Sea

All values assume Average Annual Inflow of 717,000 acre-feet.



FIGURE 18-19
SIMULATION OF SALINE HABITAT COMPLEX

Alternative 5 – North Sea

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Saline Habitat Complex, Shoreline Waterway, Saltwater Conveyance, Marine Sea, Marine Sea Recirculation Canal, and Brine Sink.

By the end of Phase I, Sedimentation/Distribution Basins, the Shoreline Waterway of the Saline Habitat Complex cells, Air Quality Management Canals, and other canals would be constructed. Construction would be initiated for the Barriers and Perimeter Dikes. Sedimentation/Distribution Basins, Saline Habitat Complex, and Air Quality Management measures would have visual characteristics as described above. In Phases II through IV, construction would be completed for the Saline Habitat Complex, Barriers, Perimeter Dikes, and Air Quality Management. The Marine Sea would be formed by Barriers and Perimeter Dikes and would be visible from the non-water side of these structures.

Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions.

Light and glare impacts would be similar to those described for the No Action Alternative.

Alternative 6 – North Sea Combined

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basin, Air Quality Management, Pupfish Channels, Saline Habitat Complex, Shoreline Waterway, Saltwater Conveyance, Marine Sea, Marine Sea Mixing Zone, Marine Sea Recirculation Canal, and Brine Sink.

Visual characteristics of the facilities in Alternative 6 would be similar to those described under Alternative 5 except that the Marine Sea is more extensive and only one Sedimentation/Distribution Basin would be constructed.

Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions. A pumping plant would be visible from a portion of the southern shoreline.

Light and glare impacts would be similar to those described for the No Action Alternative.

Alternative 7 – Combined North and South Lakes

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basin, Air Quality Management using Protective Salt Flat on Exposed Playa below -255 feet msl, Exposed Playa without Air Quality Management above -255 feet msl, Saline Habitat Complex, Recreational Saltwater Lake, Recreational Estuary Lake, Marine Sea Recirculation Canal, IID Freshwater Reservoir, two Treatment Plants, and Brine Sink.

Visual characteristics of the facilities in Alternative 7 would be similar to those described under Alternative 5 except that the Air Quality Management measures would not include water efficient vegetation.

Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions. A pumping plant would be visible from a portion of the southern shoreline.

Light and glare impacts would be similar to those described for the No Action Alternative.

Alternative 8 – South Sea Combined

As described in Chapter 3, this alternative would involve construction and operations and maintenance activities for the Sedimentation/Distribution Basins, Air Quality Management, Saline Habitat Complex, Shoreline Waterway, Marine Sea, Marine Sea Recirculation Canal, and Brine Sink.

By the end of Phase I, Sedimentation/Distribution Basins, the Early Start Habitat Saline Habitat Complex, Air Quality Management Canals, and other canals would be constructed. Construction would be initiated for the Barriers and Perimeter Dikes. Sedimentation/Distribution Basins, Saline Habitat Complex, and Air Quality Management measures would have visual characteristics as described above. In Phases II through IV, construction would be completed for the Saline Habitat Complex, Barriers, Perimeter Dikes, and Air Quality Management. The Marine Sea would be formed by Barriers and Perimeter Dikes and would be visible from the non-water side of these structures, as described above.

Distances from the shoreline to the water bodies are summarized in Table 18-3 for the four subareas previously described under Existing Conditions. A pumping plant would be visible from a portion of the eastern shoreline.

Light and glare impacts would be similar to those described for the No Action Alternative.

NEXT STEPS

In project-level analyses, specific locations of all facilities would be evaluated to identify methods to reduce visual impacts. Methods to camouflage large facilities, such as pumping plants or Sedimentation/Distribution Basins, could be considered. Camouflage methods could include vegetation barriers or use of textures and color that would blend into surrounding environment.

Consider using non-glare lighting with on-demand switching to minimize glare onto the desert and surrounding communities. Methods could be similar to mitigations used by the geothermal industry in the Salton Sea area.